MICROSCOPY.[1]

A NEW FINE ADJUSTMENT.—Mr. Ernst Gundlach, of Rochester, has introduced a device by means of which an extremely slow, fine adjustment can be obtained in addition to the ordinary coarse screw movement. It is described as follows:

In working high powers, microscopists have felt the need of a finer adjustment than the ordinary micrometer-screw, which cannot be made much finer and still be durable enough. This need is now supplied by the combination of two screws which give a resultant motion equal to the difference in the threads employed. One of these screws is a little coarser than the ordinary micrometer screw, and may be used alone as a fine adjustment, and a change can be made instantly from this to the finer motion. Either is given by one milled head located in the usual position of the fine adjustment screw-head on Gundlach's microscopes, and the change is made by turning a smaller clamping screw having its head over the former. By tightening the clamping screw, the adjustment is in order for the work of the combination; by loosening, for that of the coarser screw only. As the thread of this is a little coarser than the ordinary micrometer screw, it alone gives a better motion for medium powers than the fine adjustment in common use, a second advantage of the invention.

NEW METHOD OF DRY MOUNTING.—Mr. Frank French has contributed to the Postal Microscopical Club, a slide mounted in a style which promises to be useful for certain kinds of opaque objects which will bear occasional exposure to the dust and moisture of the air, and which are best viewed without the intervention of a cover-glass. The slip is composed of cardboard cut to 3 × 1 inches, the required thickness in each case being attained by building up a sufficient number of thicknesses, gummed together. The centers are punched out as from the paper covers for glass slips; and the object is fastened at the bottom of the cell thus formed, either upon mica fastened at the bottom of the cell or upon a bottom card not punched like the rest. The object is covered by a rectangular brass sliding plate below the upper card, the card next below being cut away to receive it and to allow it room to slide entirely away from sight when desired. A pin head is riveted and soldered into this brass plate, and projects through the upper card, appearing near the right end of the finished mount, through a longitudinal slot that permits it to be pushed toward or from the other end of the slide, and thus to carry the brass plate over the object or away from it. The whole mount is finished by covering with paper in the old style.

MOUNTING IN COPAL VARNISH.—I find this varnish dries very rapidly if slightly heated, or even if placed on a previouly-warmed slide. I have many hundred slides of diatoms prepared in copal varnish, and my friend, Mr. Van Heurck, of Antwerp, who was

[1] This department is edited by Dr. R. H. Ward, Troy, N. Y.

the first to use this material, has many thousands. The varnish to be used is what is called the "pale copal," and its consistency ought to be that of oil. It is much pleasanter to use than Canada balsam, does not make bubbles, and its refractive index is not very different from that of balsam, and does not interfere with the solution of diatom markings. I have of late made many preparations in copal, dispensing with the cover-glass altogether. The drop of copal is placed on the diatoms and heated lightly over the spirit-lamp. It soon takes the consistency of amber, and is hard enough to sustain wiping and brushing with a soft brush with impunity.—*Julien Deby, C. E., from the Journal of the Queckett Microscopical Club.*

IMPORTANCE OF STATING MAGNIFYING POWER USED.—Mr. F. J. George very properly protests, in *Science Gossip*, against the vague and ambiguous phraseology used in connection with the magnified sketches of microscopic objects. Drawings which are lettered "highly magnified," "much enlarged," etc., are rendered unscientific and absurd by the very words thus used to explain them. It would be more rational, more instructive, and more satisfactory to every scientific reader, if such vague statements were replaced, in every possible instance, by a memorandum of the number of diameters by which the drawing surpasses the size of the natural object.

COLUMBUS, OHIO, MARCH 1, 1881.

EDITOR AMERICAN NATURALIST:

Dear Sir:—I am authorized by the president of the American Society of Microscopists to announce to its members, that the Executive Committee have decided by an almost unanimous vote, to accept the invitation received from Columbus, Ohio, and to call the next meeting of the society at that place, on Tuesday, August 9, 1981 (the week previous to the Cincinnati meeting of the American Association for the advancement of Science).

ALBERT H. TUTTLE, *Secretary.*

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SCIENTIFIC NEWS.

— From advanced sheets of the report of Professor W. K. Brooks, Director of the Chesapeake Zoölogical Laboratory of Johns Hopkins University, we learn that by the liberality of the Trustees he was enabled to spend a much longer period than hitherto at the seaside, and was provided with a more liberal outfit, including a steam launch which was built for their use in the last spring, at Bristol, R. I., and has proved a very efficient auxiliary. The necessary books, dredges and other instruments were also provided by the University. In addition to the opportunities afforded to three of the members of their own academic staff, three other gentlemen, devoted to the study of zoölogy, were